**Science- progression**

**Plants**

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| Reception: * Comments and asks questions about aspects of their familiar world such as the natural world.
* Can talk about some of the things they have observed such as animals, plants, natural and found objects.
* Talks about why things happen and how things work.
* Developing an understanding of growth, decay and changes over time.
* Shows acre and concern for living things and the environment.
* Looks closely at similarities, differences, patterns and change.
* **ELG: Children know about the similarities and differences in relation to places, objects, materials and living things. They talk about the features of the own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.**
* ***Practical exploration and hands on learning linked to indoor and outdoor learning environments and seasonal topics/activities, including; planting, basic garden care, understanding of the need for water, sunlight, soil.***
* ***Discussion of what the children see, notice and observe linked to plants and growth including; outdoor play, learning journeys, home record books, autumn walk in Denes, visits to Reid St allotment at Pierrmont Methodist Church.***
* ***Seasonal and topical discussions including observations and oral accounts of changes and growth observed.***
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| Year 1: * **identify and name a variety of common wild and garden plants, including deciduous and evergreen trees**
* identify and describe the basic structure of a variety of common flowering plants, including trees

**Working Scientifically*** identifying and classifying

**Link to Teacher Assessment Framework**Name different plants and animals and describe how they are suited to different habitatsRecap – Key questions – What do plants need to grow? How do we care for plants? Can chn name any key plants and plant parts e.g. petal, bark, leaf etc. **Vocabulary:** Deciduous, Evergreen trees, Leaves, Flowers (blossom), Petals, Fruit, Roots, Bulb, Seed, Trunk, Branches, Stem**Working scientifically vocabulary:** question, answer, observe, identify, sort, group, record (diagram, chart), compare, describe |
| Year 2: * **observe and describe how seeds and bulbs grow into mature plants**
* **find out and describe how plants need water, light and a suitable temperature to grow and stay healthy**

**Working Scientifically*** asking simple questions and recognising that they can be answered in different ways
* observing closely, using simple equipment
* performing simple tests
* using their observations and ideas to suggest answers to questions
* gathering and recording data to help in answering questions.

**Link to Teacher Assessment Framework**Describe basic needs of plants for survival and the impact of changing these and the main changes as seeds and bulbs grow into mature plantsRecap:* naming plants (see Y1 vocabulary)
* basic structure of plants including trees

**Vocabulary:** Seeds, Bulbs, Water, Light, Temperature, Growth**Working scientifically vocabulary**: question, answer, observing, equipment, identify, classify, record (diagram, chart) compare, contrast, describe |
| Year 3:* identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
* **explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant**
* investigate the way in which water is transported within plants
* explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

**Working Scientifically*** making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment
* gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
* recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
* reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
* using results to draw simple conclusions
* using straightforward scientific evidence to answer questions or to support their findings.

**Link to Teacher Assessment Framework**The pupil describe the requirements of plants for life and growth and explain how environmental changes may have an impact on living thingsRecap:* Growing plants from seeds and bulbs – water, light and temperature

**Vocabulary:** Air, Light, Water, Nutrients, Soil, Reproduction, Transportation, Dispersal, Pollination, Flower**Working scientifically vocabulary:** research ( relevant question), scientific enquiry, careful observation, comparative and fair test, accurate measurements, data (gather, record, present), record (drawings, labelled diagrams), oral and written explanations, prediction, conclusion, changes, construct |
| Year4: Not taughtRecap  |
| Year 5: Not taughtRecap –  |
| Year 6: Not taughtRecap –  |